

**SECRET**

MONTHLY REPORT

25X1

PAR 202

3 April 64

SUBJECT: Briefing Print Enlarger

**TASK/PROBLEM**

1. To design and build a prototype enlarger for exposing high-quality briefing prints in formats up to and including 20 by 24 inches in size. Magnification to be in the 10- to 60- diameter range. The enlarger will be able to produce both black-and-white and color prints. Changing from one capability to the other should be made with a minimum amount of effort.

**DISCUSSION**

2. The contractor submitted a statement of revised technical objectives on 9 March 64 which came to light during the program review conference of 3 and 4 February 64. The practicability of establishing a design group to perform this design task together with those of PAR's 204, 205, and 224 is being considered, since many of the subassemblies have common requirements.

**PLANNED ACTIVITY**

3. We are now awaiting comment upon or approval of the revised objectives as submitted.

**GROUP-1**  
Excluded from automatic downgrading  
and declassification

NGA Review Complete

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6 Dec 63

## DESIGN OBJECTIVE

Briefing Print Enlarger (PAR-202)Problem

There exists a need for an enlarger for exposing high quality briefing prints in 20 x 24-inch format in the 10 to 40 diameter magnification range. This capability is required for both black & white and color materials. The 10-20-40X Precision Enlarger is now used heavily for high magnification briefing prints. However, the limited print size of this enlarger as dictated by its primary use in the production of film prints of maximum possible definition, makes it not fully suitable for briefing print exposure. Other available good quality enlargers are limited to less magnification than is required for small scale photography.

Proposal

In designing an enlarger to expose prints for briefing use, it appears that proper balancing of performance requirements can produce the desired large print format and possibly variation of magnification in small steps. We propose to include in this enlarger design features which have proven valuable in the 10-20-40X Precision Enlarger, namely:

1. Roll negative handling for 70mm to 9 $\frac{1}{2}$ -inch widths,
2. In-frame coordinate measurement,
3. Fluid injection negative gate with air squeegee fluid removal,
4. High printing speed,
5. Accurate pre-set focus, and
6. Exposure monitoring photometer.

In addition, this enlarger will provide:

1. The ability to expose color prints,
2. Roll handling of print stock, and
3. Smoother exterior design to facilitate cleaning as required for proper housekeeping in film handling areas.

In the design of a machine for use as a production tool the usual goals must be stressed, namely:

1. High operating efficiency,
2. Simple construction, and
3. Low maintenance requirements.

We believe this machine can serve a need not now fully met by any available apparatus.

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